UIG Task Force
13.1.2: Accuracy of NDM Algorithm - Weekend v's Weekday correlation

Summary of Findings

Area & Ref #	Accuracy of NDM Algorithm (Including EUC Definitions) - Weekend 'v' Weekday correlation (Ref#13.1.2)
UIG Hypothesis	All NDM sites Class 3 and 4 are assigned gas using a standard algorithm, on the basis of their assigned End User Category. If the demand model does not properly account for demand differences on weekdays and weekends then the resulting error will contribute to UIG.
Data Tree References	UIG, Gas Day, WAALP

Findings Status	**Closed**
UIG Impact Peak Volatility %	**N/A**
UIG Impact Annual Average %	**N/A**
Confidence in Percentages	**HIGH**

Findings	Approach to analysis
The current Allocation models produced by Xoserve consider the day of week during algorithm development. We analysed whether there is a direct relationship between the amount of UIG as a percentage of input energy when compared to weekends or week days. The analysis did not identify a relationship between the day of the week and UIG. The average P Value was 0.45 across all LDZs; a p Value of 0.05 or lower would indicate a significant relationship. Most LDZs had an R^2 value lower that 1% which, when combined with the low P Value, demonstrates that the NDM algorithm flexes allocation appropriately as actual demand changes over the week. Any link between weekdays / weekends and UIG values would have indicated that the NDM Model was not appropriately accounting for different demand levels on different days and that more analysis was required to quantify the impacts and recommend changes to the NDM algorithm to compensate, ultimately improving the accuracy of NDM allocation and decreasing the amount of UIG calculated at allocation.	Each LDZ was analysed independently to compare the relationship between UIG as a percentage of input energy, and a flag indicating whether the Gas Day was a weekday or a weekend day. The comparison will identify whether there is a statistical relationship between UIG base levels and / or volatility, and the day of the week of the Gas Day.